ニレワー יויוליאל McCLELLAN OIL CORPORATION LEEMAN FEDERAL NO. 1 AUG AUG 1980' FSL & 1680' FEL, Section 1-T9S-R25E Chaves County, New Mexico 3 1981 OIL & GAS U.S. GEOLOGICAL SURVEY ROSWELL, NEW MEXICO Federal Lease NM-13978 Elevation: 3657' G.L. Set 40' - 13-3/8" casing with Link Rat Hole. 5/29/81: Move in Tex-Mex Drilling Company Rig #2. Spud with 121" bit. 5/30/81: Drilling at 104' in red beds and anhydrite. 5/31/81: Drilling at 738' in anhydrite and lime. 6/01/81: Ran 803' of 8-5/8" casing. Cemented with 215 sx TD 810'. 6/02/81: H.L.C. with 2% CaCl and ½# flocele and 200 sx "C" with 2% CaCl. Circulated 50 sx. Drilling at 1220' in anhydrite with fresh water. 6/03/81: Drilling at 1810' in sand and shale with fresh water. 6/04/81: Drilling at 2304' in sand. Tripped bit to unplug jets. 6/05/81: Drilling at 2720' in anhydrite. Tripped bit twice for 6/06/81: plugged jets. Drilling at 3000' in sand and shale. 6/07/81: Drilling at 3407' in lime and shale. 6/08/81: Drilling at 3789' in sand and shale. 6/09/81: 5 min. per foot. Mudded up at Drilling at 4041' in shale. 6/10/81: 3900'. MW 9.9 lbs/gal., Vis 40, Water loss 18.4. Drilling at 4188' in red shale. MW 9.9, Vis 42, WL 13.2. 6/11/81: Made a bit trip. Drilling at 4404' in red sand and shale. MW 9.7, Vis 41, 6/12/81: WL 19. TD 4600'. MW 9.7, Vis 41, WL 15. Ran Schlumberger CNL-FDC, 6/13/81: Micro-SFL Dual Laterolog. TD 4600'. Tally on drill pipe 4599.48'. Logging and laying 6/14/81: down drill pipe. Ran 117 joints 4½", 10.5# J-55 new casing to 4568'. Cemented with 250 sx Class "C" 50-50 poz, 2% gel, 6# salt, .3% Halad-4, .3% CFR-2. Plug down at 2 P.M. 6/15/81. Temperature survey TD 4520'. Top of cement 3410'. Moving rig. No further reports 6/15/81: until completion. Rigged up pulling unit. Ran cement bond log. Perforated 4313-4316' and 4322-4327' with 2 JSPF - total 20 holes. Run tubing and Baker Model-R Packer. 6/22/81: Ran tubing and packer to 4263'. Acidized with 2000 gal. 15% Spearhead acid with 1000 standard cubic foot per barrel Nitrogen. 6/23/81: Average treatment rate - 3 bbls/min fluid, 3.5 bbls/min Nitrogen. Average treating pressure 2500 lbs. Balled out with 36 balls. Flowing back acid load. SION. ISDP - 1600 psi. Pulled packer and ran tubing open ended to 4263'. Fracture treated perfs with 16,000 gal. 75 Quality Foam and 18,250 lbs. 20-40 sand. Average treating rate 14 bbls/min. Average pressure 3700 psi. ISIP - 3100 lbs. Shut in 1 hour. 2650 ps Recovering fractiond 6/24/81: 2650 psi. Recovering frac load. Flowed back frac load. Flowing gas on $\frac{1}{2}$ " choke at 52 psi. Cal. 24 hour rate 419 MCF. Shut well in at 3:00 P.M. Will 6/25/81: set R.B.P. and test two upper zones.

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- 6/26/81: Tubing pressure 900 lbs. Casing pressure 900 lbs. Killed well with 80 bbls. 2% KCL water. Pulled tubing. Perforated with 1 JSPF from 3967-75, 4108-16, 4129-33' -21 holes. Ran bridge plug to 4205'. Tested to 1500 psi. Set packer at 3907'. Shut down for week-end.
- 6/29/81: Tubing pressure O. Acidized with 3000 gal 15% Spearhead acid and 1000 SCF/bbl N2. Average rate 3 bbls/min fluid. Average pressure - 2500 psi. ISDP - 1600 psi. After 10 min. - 1400 psi. Recovering acid load.
- 6/30/81: Shut in 14 hours. Tubing pressure 480 psi. Back side open. Blew down in 12 min. on ½" choke. No gas to surface. Ran swab. Fluid level at 3000'. Swabbed dry in 1 run. Moved packer to 4037'. Swabbed dry. Acidized with 500 gal. 15% Spearhead acid and 10 balls. Average rate 5.8 bbls/min. Average treatment pressure 2500 psi. ISDP - 500 psi. After 5 min. - 400 psi. Recovering acid load. SION.
- 7/01/81: Tubing pressure 390 psi. Pulled packer and tubing and went in open ended to 3907'. Foam fraced with 18,000 gal. 75 Quality Foam and 182 sx 20-40. Average rate 16 bbls/min. Average pressure - 2700 psi. ISDP - 2200 psi. 15 min. -1800 psi. Recovering frac load.
- 7/02/81: Flowing fine mist with gas. Est. 100 MCF/day. Killed well and reversed the sand off the bridge plug. Pulled the bridge plug and shut down overnight.
- 7/03/81: Swabbed well from 11:00 A.M. to 5:00 P.M. Well swabbing estimated 5 bbls. frac and load water/hour from all zones. Fluid level fairly static at 500' from T.D. Left well open on 1" choke.
- 7/04/81: Well dead at 9:30 A.M. 175 psi casing pressure. O tubing pressure. Shut well in at 10:00 A.M.
- 7/05/81: Well shut in 24 hours. Casing pressure 900 psi. Tubing pressure - 600 psi. Opened well at 10:00 A.M. Good flow of gas for 10 min. Started unloading water. Flowed estimated 10 bbls. load and frac water. Flowed gas with spray of water. At 2:00 P.M. well unloading slugs of water. O tubing pressure. 200 psi - casing pressure. At 7:00 P.M. O tubing pressure. 175 psi - casing pressure. Making & stream water. Shut well in 7:30 P.M.
- 7/06/81: Well shut in 13 hours. SITP 890 psi. SICP 890 psi. Will contunue to flow off water each morning until dry.
- 7/10/81: Well had 1000 psi on tubing and casing. Blew well down. Very little water. Shut in for 4 point pressure test.
- 7/31/81: Ran 4-Point Test. CAOF 550 MCF/day. Shut in waiting on pipeline connection.